

*B4*  
--45. A process according to claim 39, wherein said temperature is between 100 and 140°C.--

It is asserted that these amendments do not add new matter and are supported by the specification and claims as originally filed. The support for amended claim 39 can be more particularly found on page 3, lines 26-28, and page 4, lines 22-25. The support for new claim 45 can be more particularly found on page 14, line 16. Entry of these amendments is respectfully requested.

**REMARKS:**

Claims 22-28, 30, 32-41, and 43-45 are under examination.

Claims 22-44 have been rejected.

Claims 22, 23, 30, 32, 39, 43, and 44 have been amended.

Claims 29, 31 and 42 have been cancelled.

Claims 24-28, 33-38, 40, and 41 are kept unchanged.

Claim 45 has been added.

The rejection of claims 22 and 29 as being indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is respectfully traversed and is addressed in light of the comments below.

The claimed xanthan gum is now defined as having a percentage of acetyl groups in the range 0 to 3%, said xanthan gum being in the form of a polypentamer. Consequently, claim 29 has been cancelled.

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In view of the above comments the rejection of claims 22 and 29 as being indefinite under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, should be withdrawn.

The rejection of claims 22-26, 28-35, and 38, under 35 U.S.C. § 102 (b) as being anticipated by Doherty et al. (EP 0765939), is respectfully traversed and is addressed in light of the comments below.

The instant invention relates to a guar-free fluid for use in oil production, comprising a xanthan gum having a percentage of acetyl groups in the range 0 to 3%, said xanthan gum being in the form of a polypentamer, at least one compound which increases the ionic strength of the fluid, and at least one fluid loss control agent.

The instant invention also relates to a process for carrying out drilling operations comprising the step of using, at a temperature of at most 140°C or between 100 and 140°C, a guar-free drilling fluid comprising a xanthan gum having a percentage of acetyl groups in the range 0 to 3%, said xanthan gum being in the form of a polypentamer, at least one compound which increases the ionic strength of the fluid, and at least one fluid loss control agent.

Doherty et al. teach a non-acetylated xanthan gum solution made with a particular mutant strain of *X campestris* comprising, in addition to water, the xanthan gum and a NaCl brine. Because Doherty et al. do not disclose nor even suggest the presence of a fluid loss agent, Doherty et al. cannot anticipate the instant three-component fluid.

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The instant three-component fluid is not obvious either over Doherty et al. because Doherty et al. teach in the examples that the xanthan gum solution can withstand a maximum temperature of 80°C. On the contrary, the drilling fluid according to the instant invention may be used at a temperature of up to 140°C, or between 100 and 140°C.

In view of the above comments the rejection of claims 22-26, 28-35, and 38, under 35 U.S.C. § 102 (b) as being anticipated by Doherty et al. (EP 0765939), should be withdrawn.

The rejection of claims 22, 24-26, and 36-44, under 35 U.S.C. § 102 (b) as being anticipated by Patton et al. (GB1,080,248), is respectfully traversed and is addressed in light of the comments below.

The xanthan gum taught by Patton et al. is utterly different form the one used in the instant invention because that xanthan gum has been crosslinked by reaction with polyvalent cations at ambient temperature and basic pH values (please see page 1, lines 4-61, and from page 3, line 34 to page 3, line 88). As mentioned by the Examiner, Patton asserts that the crosslinking process may lead to some deacetylation. However, Patton never discloses nor even suggests the use of a xanthan gum having a percentage of acetyl groups in the range 0 to 3%, said xanthan gum being in the form of a polypentamer.

In view of the above comments the rejection of claims 22, 24-26, and 36-44, under 35 U.S.C. § 102 (b) as being anticipated by Patton et al. (GB1,080,248), should be withdrawn.

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The rejection of claims 22, 24, 25, 27, and 36, under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as obvious over Sandiford (US 4,069,869), is respectfully traversed and is addressed in light of the comments below.

The Examiner asserts that it is an inherent property for a xanthan gum to be deacetylated during preparation as taught by Patton et al., *supra*, on page 2, lines 95-100 of the Patton patent. Applicants disagree with that assertion. Indeed, even if a few precipitation processes "may also lead to some deacetylation", a xanthan gum having a low percentage of acetyl groups in the range 0 to 3% is not obtained. Thus, because Sandiford is absolutely silent on the use of a xanthan gum having a percentage of acetyl groups in the range 0 to 3% in the form of a polypentamer, Sandiford cannot teach nor even suggest the use of such a particular xanthan gum leading to a specific drilling fluid capable of withstanding a temperature of at most 140°C.

In view of the above comments the rejection of claims 22, 24, 25, 27, and 36, under 35 U.S.C. § 102 (b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 (a) as obvious over Sandiford (US 4,069,869), should be withdrawn.

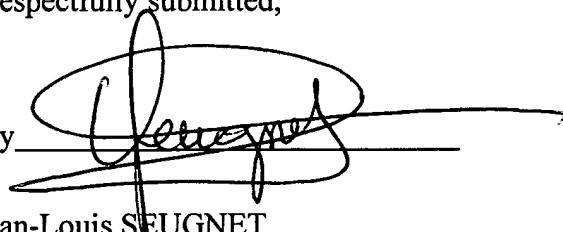
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In view of the preceding remarks, it is asserted that the present application is in condition for allowance. Should the Examiner have any questions regarding these remarks that would further advance prosecution of the claims to allowance, the examiner is cordially invited to telephone the undersigned agent at (609) 860-4180. A Notice of Allowance is respectfully solicited.

Respectfully submitted,

By



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Limited Recognition under 37 CFR § 10.9(b)  
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